PATENT
Docket 13DV-14194

In the Claims

Please amend the claims as follows:

1. (currently amended) A polymeric sponge comprising pliant cellular granules including cellulose fibers imbedded therein.

2. (original) A sponge according to claim 1 wherein said cellulose fibers are chemically bonded therein.

3. (original) A sponge according to claim 2 comprising a water-catalyzed prepolymer.

4. (original) A sponge according to claim 3 wherein said polymer comprises polyurethane.

5. (original) A sponge according to claim 3 wherein said polymer comprises polyether toluene disocyanate polyurethane.

6. (original) A sponge according to claim 3 comprising primarily only closed cells therein.

7. (original) A sponge according to claim 3 excluding surfactant therein.

8. (original) A sponge according to claim 3 further comprising abrasive particles imbedded therein.

9. (original) A sponge according to claim 8 excluding bonding agent on said abrasive particles.

10. (original) A sponge according to claim 8 wherein said abrasive particles are bonded in said polymer.

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11. (currently amended) A polymeric sponge ~~according to claim 10 wherein~~ comprising:

a water-catalyzed prepolymer including cellulose fibers imbedded and chemically bonded therein, and abrasive particles imbedded and bonded therein; and

said cellulose fibers are dispersed in said ~~polymer~~ water-catalyzed prepolymer between adjacent ones of said abrasive particles.

12. (currently amended) A polymeric sponge ~~according to claim 10~~ comprising:

a water-catalyzed prepolymer including cellulose fibers imbedded and chemically bonded therein, and abrasive particles imbedded and bonded therein; and

having a composition by weight of about 79% abrasive particles, about 18% prepolymer, about 2% catalyzing-water, and about 1% cellulose fiber.

13. (original) A sponge according to claim 10 comprising catalyzing-water and cellulose fiber in a weight ratio of about 2:1.

14. (original) A sponge according to claim 10 comprising catalyzing-water less than about 2% by weight.

15. (original) A sponge according to claim 3 wherein said polymer comprises polyether toluene disocyanate polyurethane in a matrix comprising primarily only closed cells.

16. (currently amended) A polymeric sponge ~~according to claim 15 further~~ comprising:

a water-catalyzed prepolymer including polyether toluene disocyanate polyurethane in a matrix comprising primarily only closed cells;

cellulose fibers imbedded and chemically bonded in said

water-catalyzed prepolymer; and

abrasive particles bonded in said ~~polymer~~ water-catalyzed prepolymer, and said cellulose fibers are dispersed in said ~~polymer~~ water-catalyzed prepolymer between adjacent ones of said abrasive particles.

17. (original) A sponge according to claim 16 comprising a composition by weight of about 79% abrasive particles, about 18% prepolymer, about 2% catalyzing-water, and about 1% cellulose fiber.

18. (original) A sponge according to claim 17 excluding surfactant therein, and excluding bonding agent on said abrasive particles.

19. (currently amended) A polymeric sponge comprising pliant granules including water-catalyzed polyether toluene disocyanate polyurethane having primarily only closed cells therein, and cellulose fibers chemically bonded in said polymer.

20. (original) A sponge according to claim 19 excluding abrasive particles therein.

21. (original) A sponge according to claim 19 further comprising abrasive particles bonded in said polymer.

22. (currently amended) A polymeric sponge ~~according to claim 21~~ comprising:

a water-catalyzed prepolymer including polyether toluene disocyanate polyurethane having primarily only closed cells therein, cellulose fibers chemically bonded therein, and abrasive particles bonded therein; and

a composition by weight of about 79% abrasive particles, about 18% prepolymer, about 2% catalyzing-water, and about 1%

cellulose fiber.

23. (previously amended) A polymeric sponge including cellulose fibers imbedded therein made by the process comprising:

mixing water and cellulose fibers;

mixing a water-catalyzing prepolymer with said water and cellulose mixture for chemical reaction thereof;

curing said reacting mixture to form said polymeric sponge including said cellulose fibers integrally imbedded therein; and

granulating said sponge.

24. (previously amended) A sponge according to claim 23 further comprising premixing said water and cellulose fibers prior to mixing with said prepolymer to suspend said fibers substantially uniformly in said water.

25. (previously amended) A sponge according to claim 24 wherein said cellulose fibers are hydrophilic and absorb more than their weight in water during said premixing thereof with said water.

26. (previously amended) A sponge according to claim 25 further comprising releasing said absorbed water from said cellulose fibers in said chemical reaction with said prepolymer.

27. (previously amended) A sponge according to claim 26 wherein said water, fibers, and prepolymer are mixed without abrasive particles, and without the use of auxiliary heating or cooling thereof during said chemical reaction.

28. (previously amended) A sponge according to claim 26 further comprising mixing abrasive particles with said

prepolymer, water, and fibers for said chemical reaction thereof.

29. (previously amended) A sponge according to claim 28 wherein said particles are premixed with said prepolymer prior to mixing with said premixed water and fibers.

30. (previously amended) A sponge according to claim 29 further comprising heating said prepolymer and particles prior to mixing with said water and fibers.

31. (previously amended) A sponge according to claim 30 further comprising cooling said water and fibers prior to mixing with said prepolymer and particles.

32. (previously amended) A sponge according to claim 31 wherein said prepolymer and particles are separately heated prior to mixing thereof.

33. (previously amended) A sponge according to claim 32 wherein said prepolymer and particles are heated to about the same temperature.

34. (previously amended) A sponge according to claim 33 wherein said prepolymer and particles are heated to about 100 degrees (F).

35. (previously amended) A sponge according to claim 34 wherein said water and fibers are premixed in a weight ratio of about 2:1.

36. (previously amended) A sponge according to claim 35 wherein said water and fibers are cooled to about 55 degrees (F) prior to mixing with said heated prepolymer and particles.

37. (previously amended) A sponge according to claim 36 wherein said abrasive particles, prepolymer, water, and cellulose fibers are mixed by weight of about 79%, 18%, 2%, and 1%, respectively.

38. (previously amended) A sponge according to claim 37 wherein said prepolymer comprises polyether toluene disocyanate polyurethane.

39. (previously amended) A sponge according to claim 31 wherein said particles are mixed with said prepolymer without a bonding agent.

40. (previously amended) A sponge according to claim 31 further comprising extruding said mixed prepolymer, particles, water, and cellulose fibers in an elongate bun atop a moving conveyer belt as said chemical reaction progresses.

41. (previously amended) A sponge according to claim 40 further comprising dispensing a plastic sheet between said bun and belt to prevent sticking of said bun to said belt.

42. (previously amended) A sponge according to claim 40 further comprising:

cutting said bun into shorter slabs at the end of said belt; and

storing said slabs for a plurality of days for final curing thereof.

43. (previously amended) A sponge according to claim 42 further comprising in turn shredding said slabs into smaller pieces, granulating said pieces into smaller granules, and classifying said granules into substantially uniform size.